APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,641	03/29/2004	Walter E. Donovan	NVDA P001152	2379

26291 7590 02/13/2007	EXAMINER	
PATTERSON & SHERIDAN L.L.P.	NGUYEN, HAU H	
595 SHREWSBURY AVE, STE 100		
FIRST FLOOR	ART UNIT	PAPER NUMBER
SHREWSBURY, NJ 07702	2628	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/811,641	DONOVAN, WALTER E.
	Examiner	Art Unit	
	Hau H. Nguyen	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 December 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/29/04* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The response filed on December 7, 2006 has been fully considered in preparing for this

Office Action.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-7, 10-17, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bentz (U.S. Patent No. 7,057,623) in view of Iourcha et al. (U.S. Patent No. 6,304,268).

As per claim 1, Bentz teaches a texture mapping method, comprising

receiving a normalized texture map coordinate corresponding to the non-power of two

texture map (texture map of arbitrary size, col. 2, lines 1-4), wherein the normalized texture map

coordinate has a value between 0 and 1;

receiving a non-power of two texture map dimension, scaling the normalized texture map

coordinate by the non-power of two texture dimension to compute the unnormalized texture map

coordinate for the non-power of two texture map, wherein the unnormalized texture map

coordinate has a value between 0 and the non-power of two texture map dimension – 1 (col. 4,

lines 52-63). Although Bentz does not explicitly teach the non-power of two texture map is a

level of detail, Bentz does mention the method can be applied to mip mapping (col. 8, lines 45-

47).

Thus, Bentz teaches all the limitations of claim 1, except that the received texture map is an LOD. However, as cited in previous Office Action, Iourcha et al. teach a method of texture mapping wherein the received normalized texture map is an LOD, and is used to calculate the unnormalized texture map (col. 5, lines 37-67).

Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Iourcha et al. in combination with the method as taught by Bentz in order to provide different amounts of realism in rendering graphics, thereby improving image quality.

As per claims 2 and 3, Bentz teach the non-power of two LOD dimension is a width and a height (col. 4, lines 52-63).

As per claim 4, Bentz further teaches the unnormalized texture map coordinate for the non-power of two texture map is used to determine an address of a texel within the non-power of two texture map (Fig. 3, step 346).

As per claim 11, although not explicitly taught by Bentz (even though Bentz teaches texture filtering), Iourcha et al. teach the texel is filter as a function of a weight to produce a filtered texel for a fragment (col. 4, line 60 to col. 5, line 10, and Fig. 13, item 1310). Therefore, claim 11 would have been obvious.

Claims 5-6, and 10, 13-16, which are similar in scope to claims 1-4, 11, are thus rejected under the same rationale.

As per claim 7, as cited above, Bentz teaches the normalized texture map coordinate corresponding to the non-power of two texture map is represented between 0 and 1, thus, in a floating point format.

As per claim 12, although not explicitly taught by Bentz, Iourcha et al. also teach the

non-power of two texture map is a video image (as can be used in video games, col. 1, lines 33-

35). Thus, claim 12, would have been obvious.

As per claim 17, although not explicitly stated, it is implied that Bentz teaches a

parameter conversion unit to produce the reduced portion of the normalized texture coordinate

since Bentz, as cited above, teaches scaling the dimensions of the texture map (e.g. multiplying

by a scaling factor).

Claims 19-21, which are similar in scope to claims 1-4, and 17, are thus rejected under

the same rationale.

As per claim 22, Bentz teaches a the graphics processor (Fig. 2) including a rasterizer

configured to produce the normalized texture coordinate (Fig. 3, 302).

4.   Claims 8-9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentz

(U.S. Patent No. 7,057,623) in view of Iourcha et al. (U.S. Patent No. 6,304,268) and further in

view of Taylor et al. (U.S. Patent No. 6,518,974).

As per claims 8 and 18, as cited above, Bentz and Iourcha et al. teach all the limitations

of claims 8 and 18, except for performing a wrap function. However, Taylor et al. teach a

method of obtaining a correct level of detail (LOD), in which the texture map may not be power

of two texture map (col. 23, lines 26-29). Taylor et al. also teach performing wrap computation

based a wrap mode (col. 22, lines 20-33). Therefore, it would have been obvious to one skilled in

the art to utilize the method as taught by Taylor et al. in combination with the method as taught

by Bentz and Iourcha et al. to obtain an enhanced texture mapping, and thus, providing a more

realistic final image.

As per claim 9, which is similar in scope to claim 5, is thus rejected under the same

rationale.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-22 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The

examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

2/9/2007
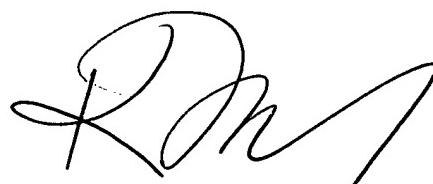
KEE M. TUNG
SUPERVISORY PATENT EXAMINER